

TRAINING PROGRAM OF INSTRUCTION (TPI)
FOR
DINFOS
BASIC STILL PHOTOGRAPHY COURSE



Approved by:

Hiram Bell, Jr.
COL, Commandant
Defense Information School

Approval Date: 28 April 2005

Supersedes TPI Dated: May 2003



TRAINING PROGRAM OF INSTRUCTION

Table of Contents

<u>Element</u>	<u>Page</u>
Preface	
Functional Area 1 – Photographic Fundamentals	7
Orientation	
Safety	
Security	
Visual Information (VI) Laboratory Administration	
Captions	
Light Theory	
Exposure	
Composition	
Digital Camera Operations	
Introduction to Electronic Imaging Systems	
Introduction to Image Enhancement/Manipulation Software	
Functional Area Test and Critique	
Functional Area 2 – Introduction To Digital Imaging	19
Color Theory	
Intermediate Image Enhancement/Manipulation Software	
Lenses and Depth of Field	
Filters	
Electronic Flash	
Computer Systems Management	
Automated Color Printing	
Awards and Presentations	
Functional Area Test and Critique	
Functional Area 3 – Photographic Assignments	28
Selected Topics of Image Enhancement/Manipulation Software	
Investigative and Documentary Photography	
Certification of Automated Color Printer-Processors	
Quality Control	
Electronic Image Copy/Acquisition	
Functional Area Test and Critique	

Functional Area 4 – Operational Photography	34
Combat Camera	
Electronic Image Telecommunications	
Night Vision Applications	
Multi-Media Software	
Joint Combat Camera Operations Photographic Assignment	
Functional Area Test and Critique	
Functional Area 5 – Electronic Imaging	40
Advanced Image Enhancement/Manipulation Software	
Digital Output Devices	
Personality and Feature Photography	
Picture Story Assignment	
Functional Area Test and Critique	
Functional Area 6 - Digital Studio Photography	45
Studio Techniques	
Posing Techniques	
Dye Sublimation Printing	
Functional Area Test and Critique	
Functional Area 7 – Comprehensive Examinations	49
Functional Area 1-3 Comprehensive Examination & Critique (1)	
Functional Area 4-6 Comprehensive Examination & Critique (2)	
Functional Area 8 – Course Administration	51
Inprocessing	
Equipment Issue and Check-in	
Course Critique	
Outprocessing	
Graduation	

TRAINING PROGRAM OF INSTRUCTION

Preface

TRAINING PROGRAM OF INSTRUCTION FILE NUMBER (TPFN): DINFOS-BSP

TITLE: Basic Still Photography

TRAINING LOCATION: Defense Information School, Ft Meade, MD

SPECIALTY AWARDED:	USA:	25V (after successful completion of DINFOS-VPD)
	USN	Photographer's Mate (PH)
	USAF	3V032, Still Photographic Apprentice
	USMC	4641, Combat Photographer

PURPOSE: To provide entry-level training in the basic fundamentals of still photography and electronic imaging techniques.

COURSE DESCRIPTION: This course provides instruction in theory and application of photographic fundamentals, captioning, chemistry, optics, sensitized materials, light sources, camera operations for standard and studio photography, exposing, processing, and printing color images, quality control, and sensitometric procedures. Electronic imaging including digital cameras, scanning hardware and software, imaging and graphic software, image transmission, archiving, and editing are trained in theory and hands-on applications.

PREREQUISITES:

- | | |
|------|---|
| USA | ASVAB EL score and GT score of 95 or higher; distant visual acuity correctable to 20/20, with normal color vision; must follow on to DINFOS-VPD course; must be eligible for secret clearance |
| USN | Combined ASVAB WK/AR or VE/AR of 104; distant visual acuity correctable to 20/20 with normal color vision; must be eligible for secret clearance |
| USAF | AFAQE score of 43; distant visual acuity correctable to 20/20 with normal color vision; must be eligible for secret clearance |
| USMC | GT score of 100 or higher; distant visual acuity correctable to 20/20 with normal color vision; must be eligible for secret clearance |

International students attending this course must have an English Comprehension Level (ECL) of 70, and distant visual acuity correctable to 20/20

SPECIAL PREREQUISITES: None

GRADE PREREQUISITES:	USA:	E-1 – E-6
	USN:	E-1 – E-6
	USAF:	E-1 – E-7
	USMC:	E-1 – E-5
	Civilian personnel:	As determined by need of agency.

SECURITY CLEARANCE: N/A

CLASS SIZE:

MAXIMUM	24
---------	----

MINIMUM	8
---------	---

ANNUAL COURSE CAP	384
-------------------	-----

COURSE LENGTH:	60 Days
-----------------------	---------

ACADEMIC HOURS:	465 Hrs
-----------------	---------

ADMINISTRATIVE HOURS:	15 Hrs
-----------------------	--------

TOTAL COURSE HOURS:	480 Hrs
---------------------	---------

INSTRUCTOR CONTACT HOURS:	1520 Hrs
----------------------------------	----------

TYPE/METHOD OF INSTRUCTION:

1. Lecture (L)	76.5 Hrs
----------------	----------

2. Performance Exercise (PE)	312.5 Hrs
------------------------------	-----------

3. Demonstration (D)	16 Hrs
----------------------	--------

4. Examination (E)	60 Hrs
--------------------	--------

- Performance Examination (EP)	34 Hrs
--------------------------------	--------

- Written Examination (EW)	26 Hrs
----------------------------	--------

5. Administrative Hours (AD)	15 Hrs
------------------------------	--------

TRAINING START DATE:	Oct 2005
-----------------------------	----------

ENVIRONMENTAL IMPACT: None. DoD policy was followed to assess the environmental impact.

MANPOWER: The Interservice Training Review Organization (ITRO) formula was used to determine the number of instructors required.

EQUIPMENT AND FACILITIES: The Course Design Resource Estimate (CDRE) contains this information.

TRAINING DEVELOPMENT PROPONENT: Directorate of Training, Course Development Department: (301) 677-3246; DSN 622-3246.

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-001-

UNIT TITLE: Orientation

TPFN HOURS AND TYPE: 6L

TPFN TOTAL HOURS: 6

PREREQUISITE TPFN: None

TASK(S): 001 Student orientation.

SUMMARY OF INSTRUCTION: The student will be introduced to Defense Information School policies and procedures, provided an overall synopsis of the training curriculum, and given a tour of the school.

REFERENCE:

BSP, Functional Area 1, "Photographic Fundamentals Study Guide and Workbook"

TPFN: DINFOS-BSP 001-001

INSTRUCTOR/STUDENT RATIO: 1:24 (L)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-002-

UNIT TITLE: Safety

TPFN HOURS AND TYPE: 3L, 1PE

TPFN TOTAL HOURS: 4

PREREQUISITE TPFN: DINFOS-BSP-001-001

TASK(S):

001	Define the right to know statement IAW OSHA standards.
002	Describe Material Safety Data Sheet (MSDS) contents and usage.
003	Identify Environmental Protection Standards (EPA Standards).
004	Describe safety precautions to be followed when working with chemical, electrical, mechanical, and physical hazards. (enabling)
005	Apply safety precautions to be followed when working with chemical, electrical, mechanical, and physical hazards.

SUMMARY OF INSTRUCTION: Students are provided Material Safety Data Sheets for all chemicals in the course and must verify in writing that they have read and understand the MSDS's. Students identify Environmental Protection Standards as applicable to the Visual Information career field. Students are trained on all safety issues and precautions used in the course. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-002)

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals Study Guide and Workbook"
DoD Instruction 6055.1 series, "DoD Safety and Occupational Health Program"
DoD Instruction 6050.5 series "DoD Hazard Communication Program"
Hazardous Material Information System
TPFN: DINFOS-BSP 001-002

INSTRUCTOR/STUDENT RATIO: 1:24(L)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-003-

UNIT TITLE: Security

TPFN HOURS AND TYPE: 2L

TPFN TOTAL HOURS: 2

PREREQUISITE TPFN: DINFOS-BSP-001-002

TASK(S):

001	Identify physical security procedures.
002	Identify the correct area of application of Operations Security (OPSEC).
003	Identify the correct procedures for marking and distributing classified material and handling sensitive items.
004	Describe the key elements of communications security.

SUMMARY OF INSTRUCTION: Students learn physical and operational security procedures as applicable to the Visual Information career field including marking and distribution of classified photographs and classification authority. Levels of security including Top Secret, Secret, and Confidential will be discussed. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-003).

REFERENCES:

DoD Directive 5200.1 series "DoD Information Security Program"
DoD Directive 5200.8 series "Security of DoD Installations and Resources"
BSP, Functional Area 1, "Photographic Fundamentals Study Guide and Workbook"
TPFN: DINFOS-BSP 001-003

INSTRUCTOR/STUDENT RATIO: 1:24(L)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-004-

UNIT TITLE: Visual Information (VI) Laboratory Administration

TPFN HOURS AND TYPE: 2.5L, .5D, .5PE

TPFN TOTAL HOURS: 3.5

PREREQUISITE TPFN: DINFOS-BSP-001-003

TASK(S):

001	Prepare, maintain, and use a generic VI work request and work request log.
002	Use equipment operating manual.
003	Identify disposition procedures for visual information records and photography. (DoD 5040 series)
004	Identify proper customer interaction procedures.
005	Identify ethical standards of conduct. (Fraud, Waste, & Abuse)
006	Identify related photographic references, publications, sources, and Photo-Lab Index.

SUMMARY OF INSTRUCTION: Students learn how to operate a Visual Information facility to include maintaining required forms and documentation. Students will complete a practical exercise on a generic work order. Customer service, guidelines for ethical versus unethical work orders and the Photo Lab Index will be discussed. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-004).

REFERENCES:

DoD Directive 5040.2 series, "Visual Information"

DoD Directive 1300.7 series, "Training and Education Measures Necessary to Support the Code of Conduct"

BSP, Functional Area 1, "Photographic Fundamentals Study Guide and Workbook"

TPFN: DINFOS-BSP 001-004

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-005-

UNIT TITLE: Captions

TPFN HOURS AND TYPE: .5L, 1D, 1.5PE, 1EW

TPFN TOTAL HOURS: 4

PREREQUISITE TPFN: DINFOS-BSP-001-004

TASK(S):

001	Define components of a caption and VIRIN number. (enabling)
002	Prepare captions using caption software.
003	Write captions/cutlines.
005	Student progress quiz and critique (Units 2-5)

SUMMARY OF INSTRUCTION: Students learn the 15 characters VIRIN format, components of a proper caption, and will be introduced to the VI standard software used for captioning. A practical exercise will be conducted producing a caption labeled with the student's individual VIRIN number. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 001-002 through TPFN: DINFOS-BSP 001-005 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-005).

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
The Associated Press Stylebook and Libel Manual
TPFN: DINFOS-DINFOS-BSP-001-001-005

INSTRUCTOR/STUDENT RATIO: 1:24(L); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-006-

UNIT TITLE: Light Theory

TPFN HOURS AND TYPE: 1.5L

TPFN TOTAL HOURS: 1.5

PREREQUISITE TPFN: DINFOS-BSP-001-005

TASK(S): 001 Identify the basic facts about the theory of light.

SUMMARY OF INSTRUCTION: Students will be taught the basic facts about the theory of light and the visible portion of the electromagnetic spectrum as it relates to vision. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-006).

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
Photography, 7th ed., Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: TPFN: DINFOS-BSP 001-006

INSTRUCTOR/STUDENT RATIO: 1:24 (L)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-007-

UNIT TITLE: Exposure

TPFN HOURS AND TYPE: 1.5 L, 3.5PE

TPFN TOTAL HOURS: 5

PREREQUISITE TPFN: DINFOS-BSP-001-006

- TASK(S)** 001 Identify the basic facts about the theory of exposure.
002 Determine equivalent exposure.
003 Use exposure data guide charts to determine exposure.

SUMMARY OF INSTRUCTION: Students will be taught the basic facts about the theory of exposure and learn to determine equivalent exposures with shutter speed and f-stop combinations. Basic daylight exposure using the “sunny 16” method will be taught. Students also learn to expose film at a higher film speed rating than normal, and then are taught how to compensate for the resulting underexposure by giving greater development than normal. A practical exercise including exposure and processing of black and white will be conducted. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-007).

REFERENCES:

BSP, Functional Area 1, “Photographic Fundamentals, Study Guide and Workbook”
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP 001-007

INSTRUCTOR/STUDENT RATIO: 1:24(L); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-008-

UNIT TITLE: Composition

TPFN HOURS AND TYPE: 2L, 12PE, 1EW

TPFN TOTAL HOURS: 15

PREREQUISITE TPFN: DINFOS-BSP-001-007

TASK(S): 001 Identify the basic elements of composition. (enabling)
002 Apply the basic elements of composition to enhance images.
003 Student progress quiz and critique (Units 6-8)

SUMMARY OF INSTRUCTION: Students will be taught how to use the basic elements of composition to enhance photographic images and proper light metering techniques and applications. Composition training will include basic elements including rule of thirds, framing, balance, perspective, and types of lines. There will be a practical exercise to reinforce learning on composition, film processing, and enlarger printing. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 001-006 through TPFN: DINFOS-BSP 001-008 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (TPFN: DINFOS-BSP 001-008).

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP 001-008

INSTRUCTOR/STUDENT RATIO: 1:24 (L); 1:6 (PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-009-

UNIT TITLE: Digital Camera Operations

TPFN HOURS AND TYPE: 5L, .5D, 15.5PE

TPFN TOTAL HOURS: 21

PREREQUISITE TPFN: DINFOS-BSP-001-008

TASK(S):

001	Describe the characteristics of Electronic Charged Coupled Devices (CCDs
002	Identify the basic characteristics and components of a digital. Camera (enabling)
003	Use digital camera to record/acquire images.
004	Use image management software to download digital images
005	Perform operator maintenance on a small format camera.

SUMMARY OF INSTRUCTION: Students will learn the characteristics of linear and array CCD's and digital cameras. Instructors will demonstrate procedures for operation a digital camera and the down loading of digital images to a computer Practical exercises will be conducted to check learning and reinforce concepts of digital photography, electronic flash, electronic imaging systems, image acquisition and enhancement, and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP-001-001-009).

REFERENCES:

DINFOS-BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP 001-009

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-010-

UNIT TITLE: Introduction to Electronic Imaging Systems

TPFN HOURS AND TYPE: 3L, 1D, 5PE

TPFN TOTAL HOURS: 9

PREREQUISITE TPFN: DINFOS-BSP-001-009

TASK(S):

001	Identify DoD guidelines concerning ethics, copyright restrictions and other legal issues affected by electronic imaging processes.
002	Identify and describe the characteristics of computers. (enabling)
003	Identify and describe the principles of electronic imaging.
004	Operate a personal computer and peripherals, to include mouse and keyboard.
005	Use computer operating systems.
006	Discuss file management.
007	Use storage devices and CD writer to archive images.
008	Perform operator maintenance on electronic imaging equipment.

SUMMARY OF INSTRUCTION: Students will learn DoD guidelines for ethical image enhancement and alteration and the basics of operating a computer and peripherals as an introduction to electronic imaging. A practical exercise will be conducted to check learning and reinforce concepts of computer fundamentals, computer operating systems, and image storage systems. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-010).

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP 001-010

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-011-

UNIT TITLE: Introduction to Image Enhancement/Manipulation Software

TPFN HOURS AND TYPE: 4L, 1D, 16PE, 1EW

TPFN TOTAL HOURS: 22

PREREQUISITE TPFN: DINFOS-BSP-001-010

- TASK(S):**
- 001 Identify the characteristics and principles of image enhancement/manipulation software. (enabling)
 - 002 Discuss compressed/non-compressed file formats. (enabling)
 - 003 Use computer workstation with imaging and caption software, employing various methods to download, manage and caption captured digital photographs.
 - 004 Student progress quiz and critique (Units 9-11)

SUMMARY OF INSTRUCTION: Students will learn the basics of image enhancement/manipulation software to color correct, resize, adjust contrast, brightness/contrast, and save digital images. Instructors will demonstrate proper image enhancement techniques. A practical exercise will be conducted to check learning and reinforce concepts of image enhancement software. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 001-009 through TPFN: DINFOS-BSP 001-011 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 1 (Ref: TPFN: DINFOS-BSP 001-011).

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP 001-011

INSTRUCTOR/STUDENT RATIO: 1:24(L)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 1
PHOTOGRAPHIC FUNDAMENTALS

TPFN: DINFOS-BSP-001-012-

UNIT TITLE: Functional Area Test and Critique

TPFN HOURS AND TYPE: 2EW, 6EP

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-001-001 to 011

TASK(S): 001 Written Test & Critique.
002 Performance Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN DINFOS-BSP 001-002 through TPFN DINFOS-BSP 001-011. Upon successful completion of the written test, students will complete a performance test covering selected tasks from the same TPFNs. Students must attain a minimum score of 70% on the written test. A minimum of 70% must be attained on the performance test.

REFERENCES:

BSP, Functional Area 1, "Fundamentals of Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
DoD Directive 5040.2 series, "Visual Information"
DoD Instruction 6050.5 series, "DoD Hazard Communication Program"
DoD Directive 5200.1 series, "DoD Information Security Program"
DoD Directive 5200.8 series, "Security of DoD Installations and Resources"
DoD Directive 6055.1 series, "DoD Safety and Occupational Health Program"
DoD Directive 1300.7 series, "Training and Education Measures Necessary to Support the Code of Conduct"
TPFN DINFOS-BSP 001-002 through TPFN DINFOS-BSP 001-011.

INSTRUCTOR/STUDENT RATIO: 1:24(EW); 1:6(EP)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-001-

UNIT TITLE: Color Theory

TPFN HOURS AND TYPE: 3L

TPFN TOTAL HOURS: 3

PREREQUISITE TPFN: None

TASK(S): 001 Identify the theory of light and color.
002 Describe the use of light balancing, color conversion, and color compensating filters.

SUMMARY OF INSTRUCTION: Students will learn the additive and subtractive light theories, and how the light spectrum affects color film. Students will learn the principles and characteristics of exposing color negative and reversal film materials as well as the use of filters with color negative film. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: TPFN: DINFOS-BSP-002-001).

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-001).

INSTRUCTOR/STUDENT RATIO: 1:24(L)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-002-

UNIT TITLE: Intermediate Image Enhancement/Manipulation Software

TPFN HOURS AND TYPE: 1.5L, .5D, 6PE

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-002-001

- TASK(S):**
- 001 Identify the tools and techniques of image enhancement/manipulation software. (enabling)
 - 002 Use computer workstation with imaging and caption software, employing various methods to perform density and color correction, crop, size, and caption captured digital photographs.

SUMMARY OF INSTRUCTION: Students will learn intermediate topics of image enhancement/manipulation software such as filters and tool menus to color correct, resize, adjust contrast, brightness/contrast, and save digital images. Instructors will demonstrate proper and ethical image enhancement techniques. A practical exercise will be conducted to check learning and reinforce concepts of image enhancement software. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: 00 TPFN: DINFOS-BSP-002-002).

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-002).

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-003-

UNIT TITLE: Lenses and Depth of Field

TPFN HOURS AND TYPE: 2L, .5D, 4.5PE

TPFN TOTAL HOURS: 7

PREREQUISITE TPFN: DINFOS-BSP-002-002

TASK(S):

001	Identify the principles of photographic lenses.
002	Use lenses (normal, wide angle, telephoto and zoom) to control image size.
003	Adjust lens for depth-of-field/focus.

SUMMARY OF INSTRUCTION: Students learn how lenses form an image, types of lenses including wide angle, normal, long focal length, macro, mirror, zoom lenses and how focal length affects angle of view and magnification of lenses. After learning the principles of photographic lenses, a practical exercise will be conducted to check learning and reinforce concepts of the changes in image size and depth of field when using different lenses. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: TPFN: BSP-002-003)

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-003

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-004-

UNIT TITLE: Filters

TPFN HOURS AND TYPE: 2L, 1EW

TPFN TOTAL HOURS 3

PREREQUISITE TPFN: DINFOS-BSP-002-003

TASK(S):

001	Identify the effects, limitations, and exposure compensation of correction, contrast, neutral density, polarizing, and haze/ultraviolet filters.
002	Determine exposure compensation for filters.
003	Student progress quiz and critique (Units 1-4)

SUMMARY OF INSTRUCTION: Students will learn to identify effects and limitations of photographic filters. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 002-001 through TPFN: DINFOS-BSP 002-004 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: TPFN: DINFOS-BSP-002-004).

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-004).

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-005-

UNIT TITLE: Electronic Flash

TPFN HOURS AND TYPE: 1.5L, .5D, 20PE

TPFN TOTAL HOURS: 22

PREREQUISITE TPFN: DINFOS-BSP-002-004

TASK(S): 001 Identify the basic facts about electronic flash. (enabling)
002 Use direct and off-camera flash techniques.
003 Use diffuser, bounce, synchro-sun, and fill flash techniques.

SUMMARY OF INSTRUCTION: Students learn basic facts about electronic flash and how to calculate exposure using various techniques. Students learn to use digital camera while employing various flash techniques including direct, bounce, off camera, and synchro-sun. A practical exercise will be conducted to check learning and reinforce concepts of electronic flash techniques. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: TPFN: DINFOS-BSP-002-005).

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-005).

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-006-

UNIT TITLE: Computer Systems Management

TPFN HOURS AND TYPE: 1.5L, .5D

TPFN TOTAL HOURS: 2

PREREQUISITE TPFN: DINFOS-BSP-002-005

TASK(S): 001 Identify characteristics and principles of networks.
002 Discuss local area network (LAN).

SUMMARY OF INSTRUCTION: Students learn file management and establishment of telecommunications over modem, data transmission error correction, data compression for transmission, and file transfer. Students also learn the Wide Area Network (WAN), Local Area Network (LAN) and Internet architecture. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2.

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-006).

INSTRUCTOR/STUDENT RATIO: 1:24 (L,D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-007-

UNIT TITLE: Automated Color Printing

TPFN HOURS AND TYPE: 2L, .5D, 13.5PE

TPFN TOTAL HOURS: 16

PREREQUISITE TPFN: DINFOS-BSP-002-006

TASK(S): 001 Identify the components and operation of automated printer-processor. (enabling)
002 Produce color prints using an automated printer-processor.

SUMMARY OF INSTRUCTION: Students learn the basic principles of outputting a digital image to a printer-processor. Instructors will demonstrate proper procedures for outputting to a printer-processor. A practical exercise will be conducted to check learning and reinforce concepts of color output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: TPFN: DINFOS-BSP-002-007).

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-007).

INSTRUCTOR/STUDENT RATIO: 1:24 (L,D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-008-

UNIT TITLE: Awards and Presentations

TPFN HOURS AND TYPE: 2.5L, .5D, 7PE, 1EW

TPFN TOTAL HOURS: 11

PREREQUISITE TPFN: DINFOS-BSP-002-007

TASK(S):

001	Identify key photographic elements in Award/Presentation Ceremonies and group photographs. (enabling)
002	Photograph awards and presentations.
003	Student progress quiz and critique (Units 5-8)

SUMMARY OF INSTRUCTION: Students will learn how to photograph awards and presentations with simulated ceremonies. A practical exercise will be conducted to check learning and reinforce concepts of award and presentation photography and automated color printing. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 002-005 through TPFN: DINFOS-BSP 002-008 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 2 (Ref: TPFN: DINFOS-BSP-002-008).

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-002-008).

INSTRUCTOR/STUDENT RATIO: 1:24 (L,D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 2
INTRODUCTION TO DIGITAL IMAGING

TPFN: DINFOS-BSP-002-009-

UNIT TITLE: Functional Area Test and Critique

TPFN HOURS AND TYPE: 2EW, 6EP

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-002-001 to 008

TASK(S): 001 Written Test & Critique.
002 Performance Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN: DINFOS-BSP 002-001 through TPFN: DINFOS-BSP 002-008. Upon successful completion of the written test, students will complete a performance test covering selected tasks from the same TPFNs. Students must attain a minimum grade of 70 on the written test. A minimum of 70 percent must be attained on the performance test.

REFERENCES:

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP 002-001 through TPFN: DINFOS-BSP 002-008

INSTRUCTOR/STUDENT RATIO: 1:24 (EW); 1:6 (EP)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 3
PHOTOGRAPHIC ASSIGNMENTS

TPFN: DINFOS-BSP-003-001-

UNIT TITLE: Selected Topics of Image Enhancement/Manipulation Software

TPFN HOURS AND TYPE: 1.5L, .5D, 6PE

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: None

TASK(S): 001 Identify selected topics of image enhancement/
manipulation software.(enabling)
002 Use computer workstation with imaging and caption software,
employing various methods to perform image enhancement and
use various selection tools on captured digital photographs.

SUMMARY OF INSTRUCTION: Students will learn selected topics of image enhancement/manipulation software such as filters and tool menus to manage and correct digital images. Instructors will demonstrate proper and ethical image enhancement techniques. A practical exercise will be conducted to check learning and reinforce concepts of image enhancement software. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 3 (Ref: TPFN: DINFOS-BSP-003-001).

REFERENCES:

BSP, Functional Area 2, "Color Photographic Fundamentals, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-003-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 3
PHOTOGRAPHIC ASSIGNMENTS

TPFN: DINFOS-BSP-003-002-

UNIT TITLE: Investigative and Documentary Photography

TPFN HOURS AND TYPE: 4L, 31PE

TPFN TOTAL HOURS: 35

PREREQUISITE TPFN: DINFOS-BSP-003-001

- TASK(S):**
- 001 Identify photographic requirements for Material Deficiency Reports (MDR). (enabling)
 - 002 Select equipment and film for shooting technical photographs for a Material Deficiency Report.
 - 003 Produce technical photos Material Deficiency Reports (MDR) using macro lens and ring light flash.
 - 004 Identify photographic requirements for legal and criminal investigations, documenting training requirements, and ground/aircraft mishaps. (enabling)
 - 005 Photograph legal and criminal investigations.
 - 006 Photograph training activities.
 - 007 Photograph aircraft/ground mishap.
 - 008 Identify procedures to be considered when performing medical and intelligence photography.

SUMMARY OF INSTRUCTION: Students will learn to use special lighting (ring-light and macro lens) to photograph deficient/damaged equipment. Students will learn the step-by-step procedures for legal/criminal investigative photography. Students will learn the principles of photographing training as well as accidents, to include aircraft/ground mishaps and the considerations of medical and intelligence photography. Practical exercises will be conducted to check learning and reinforce concepts of documentary photography and automated color printing. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 3 (Ref: DINFOS-BSP-003-002).

REFERENCES:

BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-003-002

INSTRUCTOR/STUDENT RATIO: 1:24(L); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 3
PHOTOGRAPHIC ASSIGNMENTS

TPFN: DINFOS-BSP-003-003-

UNIT TITLE: Certification of Automated Color Printer-Processors

TPFN HOURS AND TYPE: 3L, 1D, 7PE, 1EW

TPFN TOTAL HOURS: 12

PREREQUISITE TPFN: DINFOS-BSP-003-002

- TASK(S):**
- 001 Identify daily start-up and shut-down procedures for processor.
 - 002 Certify color chemistry and machine utilizing sensitometric procedures through the use of automatic processor to run/ process control strip, read control strip on densitometer, interpret control strip data, plot data on Y-55, and certify processor.
 - 003 Reference Z manuals to adjust process to certify processor.
 - 004 Identify procedures to set up/adjust master balance channel.
 - 005 Set up/adjust master slope control.
 - 006 Student progress quiz and critique (Units 1-3)

SUMMARY OF INSTRUCTION: As part of the Quality Assurance process, students learn techniques and procedures to produce controlled results and also learn machine adjustments to ensure consistent results. The students will be taught procedures for analyzing chemicals to ensure proper amounts of chemicals and water are present in a solution and how to determine the solutions degree of alkalinity or acidity. They also learn how to use a densitometer to obtain needed data for plotting and interpretation. A practical exercise will be conducted to check learning and reinforce concepts of color printing quality control. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 001-001 through TPFN: DINFOS-BSP 001-003 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 3 (Ref: TPFN: DINFOS-BSP-003-003).

REFERENCES:

BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-003-003

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 3
PHOTOGRAPHIC ASSIGNMENTS

TPFN: DINFOS-BSP-003-004-

UNIT TITLE: Quality Control

TPFN HOURS AND TYPE: 1.5L, .5D, 3PE

TPFN TOTAL HOURS: 5

PREREQUISITE TPFN: DINFOS-BSP-003-003

- TASK(S):**
- 001 Identify the evaluation process for photographic materials. (enabling)
 - 002 Visually evaluate photographic products for mechanical and chemical defects.
 - 003 Evaluate accomplishments of photographic and laboratory assignments: Quality Assurance (QA).
 - 004 Use densitometer to maintain process y-55 control charts.
 - 005 Identify principles of replenishing photographic solutions.

SUMMARY OF INSTRUCTION: As part of the QA process, students learn to evaluate photographic products and work assignments and the procedures for spotting/retouching prints. As part of the QA process, students learn techniques and procedures to produce controlled results and also learn machine adjustments to ensure consistent results. The students will be taught procedures for analyzing chemicals to ensure proper amounts of chemicals and water are present in a solution and how to determine the solutions degree of alkalinity or acidity. They also learn how to use a densitometer to obtain needed data for plotting and interpretation. Students will complete a quiz covering tasks from TPFN: DINFOS-BSP 003-001, TPFN: DINFOS-BSP 003-003, and TPFN: DINFOS-BSP 003-004 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 3 (Ref: TPFN: DINFOS-BSP-003-004).

REFERENCES:

BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-003-004

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 3
PHOTOGRAPHIC ASSIGNMENTS

TPFN: DINFOS-BSP-003-005-

UNIT TITLE: Electronic Image Copy/Acquisition

TPFN HOURS AND TYPE: 1L, 1D, 6PE

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-003-004

TASK(S):

001	Identify the components and operation of film and flatbed scanners. (enabling)
002	Acquire an image using a film scanner, flatbed scanner, computer workstation and imaging editing software.
003	Use digital technology to reproduce line drawings and continuous tone prints.

SUMMARY OF INSTRUCTION: Students will learn about scanner principles and techniques as regulations describing ethical image enhancement are reinforced. Students learn how to use computer peripherals to digitize film, flat art, and large scale originals. A practical exercise will be conducted to check learning and reinforce concepts of flatbed and film scanners, copying various originals. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 3 (Ref: TPFN: DINFOS-BSP-003-005).

REFERENCES:

BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-003-005

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 3
PHOTOGRAPHIC ASSIGNMENTS

TPFN: DINFOS-BSP-003-006-

UNIT TITLE: Functional Area Test and Critique

TPFN HOURS AND TYPE: 2EW, 6EP

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-003-001 to 005

TASK(S): 001 Written Test & Critique.
002 Performance Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN BSP 003-001 through TPFN: DINFOS-BSP 003-005. Upon successful completion of the written test, students will complete a performance test covering selected tasks from the same TPFNs. Students must attain a minimum grade of 70 on the written test. A minimum of 70 percent must be attained on the performance test.

REFERENCES:

BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN BSP 003-001 through TPFN: DINFOS-BSP 003-005

INSTRUCTOR/STUDENT RATIO: 1:24 (EW); 1:6 (EP)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 4
OPERATIONAL PHOTOGRAPHY

TPFN: DINFOS-BSP-004-001-

UNIT TITLE: Combat Camera

TPFN HOURS AND TYPE: 3L, 1D, 10PE

TPFN TOTAL HOURS: 14

PREREQUISITE TPFN: None

- TASK(S):**
- 001 Identify the principles of combat still documentation.
 - 002 Identify considerations of climatic extremes/conditions.
 - 003 Identify procedures to be considered when performing intelligence photography
 - 004 Identify operator maintenance procedures for equipment exposed to climatic extremes.
 - 005 Photograph uncontrolled action using a digital camera.

SUMMARY OF INSTRUCTION: Students will learn the principles of combat still documentation to include night vision applications. They will also be taught how to use and maintain photographic equipment under different climatic conditions. A practical exercise will be conducted to check learning and reinforce concepts of digital cameras, documentary photography caption writing, file management and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 4 (Ref: TPFN: DINFOS -BSP-004-001).

REFERENCES:

DINFOS -BSP, Functional Area 4, "Operational Photography, Study Guide and Workbook," Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-004-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 4
OPERATIONAL PHOTOGRAPHY

TPFN: DINFOS BSP-004-002-

UNIT TITLE: Electronic Image Telecommunications

TPFN HOURS AND TYPE: 2L, 13PE

TPFN TOTAL HOURS: 15

PREREQUISITE TPFN: DINFOS-BSP-004-001

TASK(S):

001	Define and describe telecommunications techniques. (enabling)
002	Compress and decompress archived images in various file-formats.
003	Discuss telecommunication transfer using satellite up-link/ down-link and radio methods
004	Transmit images via Landline (modem).
005	Download images from File Transfer Protocol/web sites.

SUMMARY OF INSTRUCTION: Students extend their fundamental electronic imaging training as they learn system management, establishment of telecommunications, and file formats and compression. A practical exercise will be conducted to apply learned principles of image acquisition, file management, formats, compression, and telecommunications. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 4 (Ref: TPFN: DINFOS-BSP-004-002).

REFERENCES:

BSP, Functional Area 4, "Operational Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-004-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 4
OPERATIONAL PHOTOGRAPHY

TPFN: DINFOS-BSP-004-003-

UNIT TITLE: Night Vision Applications

TPFN HOURS AND TYPE: 1, 1D, 4PE, 1EW

TPFN TOTAL HOURS: 7

PREREQUISITE TPFN: DINFOS-BSP-004-002

TASK(S):

001	Describe the characteristics of night vision devices
002	Photograph military operations employing night vision devices
003	Student progress quiz and critique (Units 1-3)

SUMMARY OF INSTRUCTION: Students will learn the characteristics and properties of night vision devices. Instructors will demonstrate procedures for night vision devices employment in conjunction with a digital camera. Practical exercises will be conducted during the Field Training Exercise (FTX) to check learning and reinforce concepts of night vision photography and image acquisition. Students will complete a quiz covering tasks from TPFN: DINFOS -BSP 004-001 and TPFN: DINFOS -BSP 004-003 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 4 (Ref: TPFN: DINFOS-BSP-004-003).

REFERENCES:

BSP, Functional Area 4, "Introduction to Digital Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-004-003

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 4
OPERATIONAL PHOTOGRAPHY

TPFN: DINFOS-BSP-004-004

UNIT TITLE: Multi-Media Software

TPFN HOURS AND TYPE: 1.5L, .5D, 8PE

TPFN TOTAL HOURS: 10

PREREQUISITE TPFN: DINFOS-BSP-004-003

TASK(S): 001 Identify the characteristics and principles of multi-media software and discuss presentation layout.
002 Create an electronic multi-media presentation using electronic multi-media software products.

SUMMARY OF INSTRUCTION: Students learn to create electronic multi-media presentations. A practical exercise will be conducted to check learning and reinforce concepts of digital cameras, caption writing, documentary photography and multi-media software. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 4 (Ref: TPFN: DINFOS-BSP-004-004).

REFERENCES:

BSP, Functional Area 4, "Operational Photography, Study Guide and Workbook"
Photography Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-004-004

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 4
OPERATIONAL PHOTOGRAPHY

TPFN: DINFOS-BSP-004-005-

UNIT TITLE: Joint Combat Camera Operations Photographic Assignment

TPFN HOURS AND TYPE: 8PE

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: BSP-004-004

TASK(S): 001 Use electronic imaging equipment in a field environment to document (photograph) military operations.
002 Print and transmit images from a field environment.
003 Prepare post deployment after-action and damage assessment reports.

SUMMARY OF INSTRUCTION: Students will document military operations in a remote location and produce imagery for a local authority as well as transmitting imagery back to DINFOS to be used for AAR and damage assessment reports. The practical exercise will be conducted to check learning and reinforce concepts of digital cameras, caption writing, documentary photography and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 4 (Ref: TPFN: DINFOS-BSP-004-005).

REFERENCES:

BSP, Functional Area 4, "Operational Photography, Study Guide and Workbook"
Photography Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-004-005

INSTRUCTOR/STUDENT RATIO: 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 4
INTRODUCTION TO DIGITAL PHOTOGRAPHY

TPFN: DINFOS-BSP-004-006-

UNIT TITLE: Functional Area Test and Critique

TPFN HOURS AND TYPE: 2EW, 6EP

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-004-001 to -005

TASK(S): 001 Written Test & Critique.
002 Performance Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN DINFOS-BSP 004-001 through TPFN: DINFOS-BSP 004-005. Upon successful completion of the written test, students will complete a performance test covering selected tasks from the same TPFNs. Students must attain a minimum grade of 70 on the written test. A minimum of 70 percent must be attained on the performance test.

REFERENCES:

BSP, Functional Area 4, "Introduction to Digital Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton

INSTRUCTOR/STUDENT RATIO: 1:24 (EW); 1:6 (EP)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 5
ELECTRONIC IMAGING

TPFN: DINFOS-BSP-005-001-

UNIT TITLE: Advanced Image Enhancement/Manipulation Software

TPFN HOURS AND TYPE: 1.5L, .5D, 6PE

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: None

TASK(S): 001 Identify advanced topics of image enhancement/
manipulation software.(enabling)
002 Use computer workstation with imaging and caption software,
employing various methods to perform image enhancement and
use various selection tools on captured digital photographs.

SUMMARY OF INSTRUCTION: Students will learn advanced topics of image enhancement/manipulation software such as filters and tool menus to manage and correct digital images. Instructors will demonstrate proper and ethical image enhancement techniques. A practical exercise will be conducted to check learning and reinforce concepts of image enhancement software. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 5 (Ref: TPFN: DINFOS-BSP-005-001).

REFERENCES:

BSP, Functional Area 5, "Electronic Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-005-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 5
ELECTRONIC IMAGING

TPFN: DINFOS-BSP-005-002-

UNIT TITLE: Digital Output Devices

TPFN HOURS AND TYPE: 1.5L, .5D, 3PE

TPFN TOTAL HOURS: 5

PREREQUISITE TPFN: DINFOS-BSP-005-001

TASK(S):

001	Describe characteristics of laser and inkjet printers. (enabling)
002	Use laser and ink jet printers to output digital images.
003	Identify the procedures associated with color calibration and color management of monitors and output devices.

SUMMARY OF INSTRUCTION: Students learn principles of output devices and configure input and output devices to yield predictable result. A practical exercise will be conducted to check learning and reinforce concepts of digital cameras, documentary photography and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 5 (Ref: TPFN: DINFOS-BSP-005-001).

REFERENCES:

BSP, Functional Area 5, "Electronic Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-005-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 5
ELECTRONIC IMAGING

TPFN: DINFOS-BSP-005-003-

UNIT TITLE: Personality and Feature Photography

TPFN HOURS AND TYPE: 1.5L, 1D, 26PE, 1EW

TPFN TOTAL HOURS: 29.5

PREREQUISITE TPFN: DINFOS-BSP-005-002

TASK(S):

001	Describe the characteristics of a feature photo and personality portrait. (enabling)
002	Photograph, print, and mount a feature photo assignment.
003	Photograph, print and mount a personality photo assignment.
004	Describe photographic requirements for documenting training activities. (enabling)
005	Photograph and print a training activity assignment.
006	Student progress quiz and critique (Units 1-3)

SUMMARY OF INSTRUCTION: Students will learn to shoot feature photos, personality portraits, and training documentation photographic assignments. Students will complete a quiz covering tasks from TPFN: DINFOS -BSP 005-001 and TPFN: DINFOS -BSP 005-003 and attain a minimum score of 70%. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 5 (Ref: TPFN: DINFOS-BSP-005-003).

REFERENCES:

BSP, Functional Area 5, "Electronic Imaging", Study Guide and Workbook,"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-005-003

INSTRUCTOR/STUDENT RATIO: 1:24(L, D, EW); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 5
ELECTRONIC IMAGING

TPFN: DINFOS-BSP-005-004-

UNIT TITLE: Picture Story Assignment

TPFN HOURS AND TYPE: 2L, 42.5PE

TPFN TOTAL HOURS: 44.5

PREREQUISITE TPFN: DINFOS-BSP-005-003

- TASK(S):**
- 001 Identify procedures necessary to coordinate/research mission requirements.
 - 002 Develop story idea pictorially and plan a shooting script.
 - 003 Select equipment to photograph assignment.
 - 004 Photograph a scripted story idea applying controlled and uncontrolled action techniques.
 - 005 Use layout software to assemble a picture story presentation.

SUMMARY OF INSTRUCTION: Students will learn the basics of documentary and photojournalistic photography to include documentation techniques and caption writing to research, shoot, and lay out a picture story. A practical exercise will be conducted to check learning and reinforce concepts of digital cameras, documentary photography and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 5 (Ref: TPFN: DINFOS-BSP-005-004).

REFERENCES:

BSP, Functional Area 5, "Electronic Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS-BSP-005-004

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:6(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 5
ELECTRONIC IMAGING

TPFN: DINFOS-BSP-005-005-

UNIT TITLE: Functional Area Test and Critique

TPFN HOURS AND TYPE: 2EW, 6EP

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: DINFOS-BSP-005-001 to -004

TASK(S): 001 Written Test & Critique.
002 Performance Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN: DINFOS -BSP 005-001 through TPFN: DINFOS-BSP 005-004. Upon successful completion of the written test, students will complete a performance test covering selected tasks from the same TPFNs. Students must attain a minimum grade of 70 on the written test. A minimum of 70 percent must be attained on the performance test.

REFERENCES:

BSP, Functional Area 5, "Electronic Imaging, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton
TPFN: DINFOS -BSP 005-001 through TPFN: DINFOS-BSP 005-004

INSTRUCTOR/STUDENT RATIO: 1:24 (EW); 1:6 (EP)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 6
DIGITAL STUDIO PHOTOGRAPHY

TPFN: DINFOS-BSP-006-001-

UNIT TITLE: Studio Techniques

TPFN HOURS AND TYPE: 2L, 1D, 3PE

TPFN TOTAL HOURS: 6

PREREQUISITE TPFN: None

TASK(S):

001	Identify the principles of studio lighting.
002	Identify the fundamentals of interpersonal communications.
003	Use flash meter to determine single flash, multi-flash, and cumulative flash exposure techniques
004	Use light meter to read incident light intensity.
005	Use flash guide numbers to calculate exposures.
005	Perform operator maintenance on lighting equipment.

SUMMARY OF INSTRUCTION: Students will learn studio photography from the psychological aspect through the technical methods. They will be taught how to take a variety of exposure meter readings under different lighting conditions, multiple lighting setup and balancing, and various lighting and posing techniques. Lighting ratios and military portrait posing will be emphasized. A demonstration will be conducted to reinforce concepts of digital cameras, studio electronic flash, military portraiture, and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 6 (Ref: TPFN: DINFOS-BSP-006-001).

REFERENCES:

BSP, Functional Area 5, "Digital Studio Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton,
TPFN: DINFOS-BSP-006-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:5(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 6
DIGITAL STUDIO PHOTOGRAPHY

TPFN: DINFOS-BSP-006-002-

UNIT TITLE: Posing Techniques

TPFN HOURS AND TYPE: 2L, 29PE

TPFN TOTAL HOURS: 31

PREREQUISITE TPFN: DINFOS-BSP-006-001

- TASK(S):**
- 001 Identify posing techniques and standards for formal military portraiture and full-length photographs. (enabling)
 - 002 Use posing techniques to take formal military portraiture.
 - 003 Use posing techniques to take full-length photographs.
 - 004 Identify Department of State requirements for passport photographs. (enabling)
 - 005 Use posing techniques to take passport photographs.
 - 005 Identify posing techniques for group portraiture. (enabling)
 - 007 Use posing techniques to take group portraiture.
 - 008 Position lights and use lighting techniques to digitally acquire large-scale maps.

SUMMARY OF INSTRUCTION: Students will set up and use common head and shoulder and full length posing using multiple lighting techniques to shoot military style photographs. Passport photograph requirements will be discussed along with special situation portraiture. Practical exercises will be conducted to check learning and reinforce concepts of digital cameras, studio electronic flash, military portraiture, passport photography, and digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 5 (Ref: TPFN: DINFOS-BSP-006-001).

REFERENCES:

BSP, Functional Area 6, "Digital Studio Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton,
TPFN: DINFOS-BSP-006-001

INSTRUCTOR/STUDENT RATIO: 1:24(L, D); 1:5(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 6
DIGITAL STUDIO PHOTOGRAPHY

TPFN: DINFOS-BSP-006-003-

UNIT TITLE: Dye Sublimation Printing

TPFN HOURS AND TYPE: .5L, .5D, 1PE

TPFN TOTAL HOURS: 2

PREREQUISITE TPFN: BSP-006-002

TASK(S): 001 Identify the principles of the thermal dye sublimation printer. (enabling)
002 Output digital images to a thermal dye sublimation printer.

SUMMARY OF INSTRUCTION Students will learn basic concepts of the dye sublimation printers to output studio portraits. A demonstration will be given by the instructor to illustrate how the digital image is exported to the thermal dye sublimation printer. A practical exercise will be conducted to check learning and reinforce concepts of digital output devices. Students must complete required reading and attain a minimum score of 70% on written and performance exams at the completion of Functional Area 6 (Ref: TPFN: DINFOS-BSP-006-003).

REFERENCES:

BSP, Functional Area 6, "Digital Studio Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton,
TPFN: DINFOS-BSP-005-003

INSTRUCTOR/STUDENT RATIO: 24(L, D); 1:5(PE)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 6
DIGITAL STUDIO PHOTOGRAPHY

TPFN: DINFOS-BSP-006-004-

UNIT TITLE: Functional Area Test and Critique

TPFN HOURS AND TYPE: 2EW, 4EP

TPFN TOTAL HOURS: 6

PREREQUISITE TPFN: DINFOS-BSP-006-001 to 003

TASK(S): 001 Written Test & Critique.
002 Performance Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN: DINFOS-BSP 006-001 through TPFN: DINFOS-BSP 006-003. Upon successful completion of the written test, students will complete a performance test covering selected tasks from the same TPFNs. Students must attain a minimum grade of 70 on the written test. A minimum of 70 percent must be attained on the performance test.

REFERENCES:

BSP, Functional Area 6, "Digital Studio Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton

INSTRUCTOR/STUDENT RATIO: 1:24 (EW); 1:5 (EP)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 7
COMPREHENSIVE EXAMINATIONS

TPFN: DINFOS-BSP-007-001-

UNIT TITLE: Comprehensive Test and Critique 1

TPFN HOURS AND TYPE: 3EW

TPFN TOTAL HOURS: 3

PREREQUISITE TPFN: DINFOS-BSP-001-001 to -011, DINFOS-BSP-002-001 to -008, and DINFOS-BSP-003-001 to -005

TASK(S): 001 Written Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN: DINFOS-BSP-001-001 through TPFN: DINFOS-BSP-003-005. Students must attain a minimum grade of 70 on the written test.

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"

BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"

BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"

Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton

INSTRUCTOR/STUDENT RATIO: 1:24 (EW)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 7
COMPREHENSIVE EXAMINATIONS

TPFN: DINFOS-BSP-007-002-

UNIT TITLE: Comprehensive Test and Critique 2

TPFN HOURS AND TYPE: 3EW

TPFN TOTAL HOURS: 3

PREREQUISITE TPFN: DINFOS-BSP-001-001 to -011, DINFOS-BSP-002-001 to -008, DINFOS-BSP-003-001 to -005, DINFOS-BSP-004-001 to -005, DINFOS-BSP-005-001 to -004, and DINFOS-BSP-006-001 to -003

TASK(S): 001 Written Test & Critique.

SUMMARY OF INSTRUCTION: Students will complete a written test covering tasks from TPFN: DINFOS-BSP-001-001 through TPFN: DINFO-BSP-006-003. Students must attain a minimum grade of 70 on the written test.

REFERENCES:

BSP, Functional Area 1, "Photographic Fundamentals, Study Guide and Workbook"
BSP, Functional Area 2, "Introduction to Digital Imaging, Study Guide and Workbook"
BSP, Functional Area 3, "Photographic Assignments, Study Guide and Workbook"
BSP, Functional Area 4, "Operational Photography, Study Guide and Workbook,"
BSP, Functional Area 5, "Electronic Imaging, Study Guide and Workbook"
BSP, Functional Area 6, "Digital Studio Photography, Study Guide and Workbook"
Photography, Addison-Wesley Educational Publishers, 2001, London, Barbara, and John Upton

INSTRUCTOR/STUDENT RATIO: 1:24 (EW)

SAFETY FACTORS: Normal

FUNCTIONAL AREA 8
COURSE ADMINISTRATION

TPFN: DINFOS-BSP-008-001

UNIT TITLE: Course Administration

TPFN HOURS AND TYPE: 15AD

TPFN TOTAL HOURS: 15

PREREQUISITE TPFN: None

TASK(S): 001 Inprocessing.
 002 Equipment Issue and Check-in
 003 Course critiques.
 004 Outprocessing.
 005 Graduation.

SUMMARY OF INSTRUCTION: Self-explanatory.

REFERENCES: DINFOS Policy and Procedures Manual

INSTRUCTOR/STUDENT RATIO: 1:24

SAFETY FACTORS: Normal